



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/575,433	12/20/1995	LISHENG HUANG	RIC-95-042	8140
25537	7590	04/27/2006	EXAMINER	
MCI, LLC 1133 19TH STREET NW WASHINGTON, DC 20036			TRAN, PHUC H	
			ART UNIT	PAPER NUMBER
			2616	

DATE MAILED: 04/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	08/575,433	HUANG, LISHENG	
	Examiner	Art Unit	
	PHUC H. TRAN	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 03 April 2006.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1,4-7,9-11,14-17,19,20,22 and 26-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1,4-7,9-11,14-17,19,20,22 and 26-39 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____.

DETAILED ACTION

This communication is in response to the interview on 4/3/06. Claims 1, 4-7, 9-11, 14-17, 19, 20, 22, and 26-39 are pending in the application. The office action mailed on 1/24/2006 is hereby withdrawn and replaced by new office action. Detailed action is followed:

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1,4-6, 9-11, 14-17,19,20,22,26-33, and 35-38 are rejected under 35 U.S.C. 102(e) as being anticipated by Turock (U.S Patent No. 6243373 B1).

- With respect to claims 1, & 11, Turock teaches a telecommunications system comprising:

an originating circuit-switched network for providing originating signals in response to voice input (blocks 208 & 210 in Fig. 2),

an originating gateway computer for converting said originating signals into digital data packets (block 206 in Fig. 2),

a terminating gateway computer that accepts out of band signaling and converts said digital data packets into terminating signals (block 216 in Fig. 2 and col. 9, lines 8-25),

a terminating circuit-switched network for providing voice output in response to said terminating signals (blocks 220 and 222 in Fig. 2), and

a packet-switched network for transmitting said digital data packets from said originating gateway computer to said terminating gateway computer (block 214 in Fig. 2), at least one of said originating gateway computer or said terminating gateway computer comprising a component for routing said digital data packets through said packet-switched network from said originating gateway computer to said terminating gateway computer (block 512 in Fig. 2);

wherein said terminating circuit-switched network is capable of providing first return signals to said terminating gateway computer in response to return voice input (e.g. col. 5, lines 1-3),

wherein said terminating gateway computer comprises a component for converting said first return signals into return packets of return digital data (in the Remote ITS node 216 has a same ICM for converting signals to digital and reverse),

wherein at least one of said originating gateway computer or said terminating gateway computer comprises a component for routing said return packets through said packet-switched network from said terminating gateway computer to said originating gateway computer (512 in Fig. 2),

and wherein said originating gateway computer comprises a component for converting said return packets into second return signals (ICM 508 in Fig. 2).

- With respect to claims 4, & 14, Turock also teaches wherein said terminating gateway computer comprises a terminating buffer component for storing said digital packets prior to the conversion thereof into said terminating signals (col. 4, lines 20-24).

- With respect to claims 5, & 15, Turock discloses wherein said terminating gateway computer further comprises a component for rearranging said stored digital packets to maintain a proper packet order (914 in Fig. 10).

- With respect to claims 6, & 16, Turock further teaches wherein said routing component provides said routing in response to dialed digits (col. 6, lines 35-37).

- With respect to claims 9, & 19, Turock teaches wherein said originating gateway computer comprises an originating buffer component for storing said return packets prior to conversion thereof into said second return signals (col. 8, lines 23-26).

- With respect to claims 10, & 20, Turock discloses wherein said originating gateway computer further comprises a component for rearranging said stored return packets to maintain a proper packet order (914 in Fig. 10).

- With respect to claim 17, Turock teaches wherein said routing component provides said routing in response to a typed input from a computer keyboard (252 in Fig. 4).

- With respect to claim 22, Turock teaches a telecommunications method comprising:
providing originating digital packets for transmission from an originating gateway computer (206 in Fig. 2), said originating digital packets corresponding to originating signals produced in response to originating voice input (202,208,210 in Fig. 2);

routing said originating digital packets from said originating gateway computer to a gateway computer, that accepts out of band signaling, through a packet-switched network via an originating routing component in at least one of said originating gateway computer or said gateway computer (block 216 in Fig. 2 and col. 9, lines 8-25);

converting said originating digital packets into terminating signals for transmission from said gateway computer (in the Remote ITS node 216 has a same ICM for converting signals to digital and reverse);

transmitting said terminating signals through a circuit-switched network for providing terminating voice output in response to said terminating signals (204,222,220 in Fig. 2);

providing first return signals to said gateway computer in response to return voice input into said circuit-switched network (e.g. full duplex communication between 204 and 202 in Fig. 2);

converting said return signals into return digital packets of return digital data for transmission from said gateway computer (in the Remote ITS node 216 has a same ICM for converting signals to digital and reverse);

routing said return digital packets through said packet-switched network from said gateway computer to said originating gateway computer using said originating routing component or another routing component in said originating gateway computer or said gateway computer (from 216 to 214 to 206 in Fig. 2);

and converting said return digital packets into second return signals (at the 508 in Fig. 5).

- With respect to claims 26, & 32, Turock further teaches wherein at least one of said routing components comprises an address resolution logic and a network routing database implemented with a central processing unit (col. 12, lines 66-67).

- With respect to claims 27, & 33, Turock discloses wherein said originating gateway computer includes a component for providing a ring back tone or a busy tone to a telephone connected to said originating circuit-switched network (col. 8, lines 9-11, 25-26).

- With respect to claim 28, Turock also teaches wherein said originating gateway computer includes a component for providing out of band signaling between said originating gateway computer and said originating circuit-switched network (col. 9, lines 8-25).

- With respect to claim 29, Turock teaches a telecommunications system comprising:
an originating circuit-switched network for providing originating signals in response to voice input (blocks 208 & 210 in Fig. 2),

an originating gateway computer for converting said originating signals into digital data packets (block 206 in Fig. 2),

a terminating gateway computer that accepts out of band signaling and converts said digital data packets into terminating signals (block 216 in Fig. 2 and col. 9, lines 8-25 see explanation below),

a terminating circuit-switched network for providing voice output in response to said terminating signals (blocks 220 and 222 in Fig. 2), and

a packet-switched network for transmitting said digital data packets from said originating gateway computer to said terminating gateway computer (block 214 in Fig. 2), at least one of said originating gateway computer or said terminating gateway computer comprising a

component for routing said digital data packets through said packet-switched network from said originating gateway computer to said terminating gateway computer (block 512 in Fig. 2);

wherein said terminating circuit-switched network is capable of providing first return signals to said terminating gateway computer in response to return voice input (e.g. col. 5, lines 1-3),

wherein said terminating gateway computer comprises a component for converting said first return signals into return packets of return digital data (in the Remote ITS node 216 has a same ICM for converting signals to digital and reverse),

wherein at least one of said originating gateway computer or said terminating gateway computer comprises a component for routing said return packets through said packet-switched network from said terminating gateway computer to said originating gateway computer (512 in Fig. 2),

wherein said originating gateway computer comprises a component for converting said return packets into second return signals (in the Remote ITS node 216 has a same ICM for converting signals to digital and reverse), and

wherein at least one of said originating gateway computer or said terminating gateway computer comprises a time-division multiplexing bus interconnecting at least one digital trunk interface with a digital signal processor and an application-specific integrated circuit, and a system bus interconnecting said digital signal processor and said application-specific integrated circuit with a central processing unit and a random access memory (e.g. busses in Fig. 5 between 205,506,508,504,512).

- With respect to claim 30, Turock teaches wherein said system bus is interconnected with said originating circuit-switched network via a component for out of band signaling (col. 6, lines 44-50).

- With respect to claim 31, Turock discloses wherein said originating circuit-switched network comprises at least one dedicated address for a caller (e.g. the telephone number of caller), and a routing configuration from said dedicated address to said originating gateway computer (col. 6, lines 36-43), said routing configuration being such that a caller's address and a destination address are passed to said originating gateway computer by the originating circuit-switched network and are routed to said terminating gateway computer by an originating routing component (col. 6, lines 43-51 and col. 9, lines 8-25).

- With respect to claims 35 & 37, Turock teaches wherein said gateway computer is a terminating gateway computer (216 in Fig. 2), and wherein said method further comprises:

providing a caller's address and a callee's address to said originating gateway computer (col. 6, lines 50-55; col. 12, lines 66-67), authorizing a call between the caller and the callee using the caller's address (col. 9, lines 66-67), using the callee's address for said routing of the originating digital packets from the originating gateway computer to the terminating gateway computer (e.g. bridge paragraph between cols. 8 & 9), causing the terminating gateway computer to dial out to the callee through said circuit switched network using the callee's address (col. 7, lines 10-12), and causing the originating gateway computer to provide a return tone for advising the caller of a status of the call (col. 8, lines 25-26).

Art Unit: 2616

- With respect to claim 36, Turock discloses comprising the further step of causing the terminating gateway computer to transmit to the originating gateway computer via said packet-switched network a state change caused by the callee's answering said call (col. 7, lines 1-17).

- With respect to claim 38, Turock teaches a method for establishing a call connection, the method comprising:

receiving, at a first gateway device, a destination address of a called device from a calling device over a first circuit-switched network (col. 6, lines 44-46);

transmitting, in response to receiving the destination address, a connection request from the first gateway device to a second gateway device over a packet-switched network, at least one of the first gateway device or the second gateway device accepting out of band signaling (col. 6, lines 48-51, bridge paragraph between cols. 6-7);

connecting, via the second gateway device, to the called device through a second circuit-switched network using the destination address (col. 7, lines 10-12); and establishing a call connection between the calling device and the called device through the first circuit-switched network, the packet-switched network, and the second circuit-switched network in response to the connecting (col. 7, lines 13-17).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Turock (U.S Patent No. 6243373 B1) in view of Immendorfer et al. (U.S. Patent No. 4763350).

- With respect to claim 7, Turock discloses all the aspect of the claimed invention as set forth above but fails to teach wherein said routing component provides said routing in response to spoken digits. Immendorfer teaches dial out information in form of spoken words and/or spoken digits (col. 3, lines 40-45) in the telephone communication. The service feature of dial out in form of speed can implement at block 202 of Turock for user's convenient. Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to implement the speed recognition into Turock invention for user's convenient.

5. Claim 34 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Turock (U.S Patent No. 6243373 B1) in view of Hellwarth et al. (U.S. Patent No. 4935956).

- With respect to claims 34 & 39, Turock teaches a telecommunications method comprising:

providing originating digital packets for transmission from an originating gateway computer (206 in Fig. 2), said originating digital packets corresponding to originating signals produced in response to originating voice input (202,208,210 in Fig. 2);

routing said originating digital packets from said originating gateway computer to a gateway computer, that accepts out of band signaling, through a packet-switched network via an originating routing component in at least one of said originating gateway computer said gateway computer (block 216 in Fig. 2 and col. 9, lines 8-25);

converting said originating digital packets into terminating signals for transmission from said gateway computer (in the Remote ITS node 266 has a same ICM for converting signals to digital and reverse);

transmitting said terminating signals through a circuit-switched network for providing terminating voice output in response to said terminating signals (204,222,220 in Fig. 2);

providing first return signals to said gateway computer in response to return voice input into said circuit-switched network (e.g. full duplex communication between 204 and 202 in Fig. 2);

converting said return signals into return digital packets of return digital data for transmission from said gateway computer (in the Remote ITS node 216 has a same ICM for converting signals to digital and reverse);

routing said return digital packets through said packet-switched network from said gateway computer to said originating gateway computer using said originating routing component or another routing component in said originating gateway computer or said gateway computer (from 216 to 214 to 206 in Fig. 2);

converting said return digital packets into second return signals (at the 508 in Fig. 5);
estimating a unit charge for a call going through said gateway computer; informing a caller providing said originating voice input about the unit charge (col. 9, lines 27-50). Turock fails to teach recording a payment method specified by the caller before providing said terminating voice output.

Hellwarth teaches a payment method specified by the caller (col. 3, lines 40-55) for allowing the customer to select a method of payment before communicating. Therefore, it would

have been obvious to a person of ordinary skill in the art at the time of the invention was made to implement the selecting payment method of user before making a call for customer's convenient.

Response to Arguments

6. The following claims 29-30, 34, and 39 were indicated allowable by examiner in previous office action; however, these claims are unpatentable in view of new arts. Therefore, these indicated claims are withdrawn.
7. In response to Applicant's argument with respect to claims 1, 4-7, 9-11, 14-17, 19-20, 22 and 26-39 have been considered.

About the gateway accepts the out-of-band signaling. Examiner respectfully disagrees with Applicant.

1. Out-of-band communication is the exchange of call control information on a channel, separate from that used by the telephone call. ***Out-of-band signaling:*** A system that uses a separate communications channel or frequency outside the voice band for signaling. Modern systems use a separate channel either TDM or virtual. SS7 uses messages for signaling that are carried on signaling links distinct from voice channels. ISDN uses messages for signaling that are carried on the D-channel distinct from voice carried on B-channels. Frame Relay and ATM use messages that are carried on a separate virtual connection reserved for signaling.

*Related Terms Related Courses Related Tutorials
Copyright © 1995-1998 TRA - All rights reserved.*

2. As definition above: Turock teaches the call control information (col. 9, lines 9-25) is established separate from telephone call between the calling and called parties (col. 9, line 8). Turock teaches the ITS nodes exchange the call control information (as out-of-band signal; CIM 510 communicates with CAM 556 in Fig. 5) to negotiation and set up

parameters and then establish the connection. Therefore, Turock's system discloses the ITS (216) receiving out-of-band signal from ITS (206) as the claim invention.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHUC H. TRAN whose telephone number is (571) 272-3172. The examiner can normally be reached on M-F (8-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, CHI PHAM can be reached on (571) 272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Phuc Tran
Assistant Examiner
Art Unit 2664

P.t
April 19, 2006


CHI PHAM
EXAMINER
4/20/06